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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE TWO HUNDRED AND SEVENTH MEETING

Held at Headquarters, New York,
on Wednesday, 25 June 1980, at 10.30 a.m.

Chairman: Mr. JANKOWITSCH (Austria)

Attendance by States non-members of the Committee

General exchange of views (continued)

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The meeting was called to order at 10.55 a.m.

ATTENDANCE BY STATES NON-MEMBERS OF THE COMMITTEE

The CHAIRMAN: I should like to inform members of the Committee that I have received requests from two States Members of the United Nations non-members of this Committee to participate in our work. One is contained in a letter from the Permanent Representative of Democratic Kampuchea to the United Nations in document A/AC.105/275, dated 20 June 1980; the other is contained in a letter from the Permanent Representative of Cuba to the United Nations in document A/AC.105/276, dated 23 June 1980.

Representatives will recall that at the beginning of our session we received requests from two Member States on which we acted, and they have been invited to attend the Committee's twenty-third session and to address the Committee as appropriate, without prejudice to further requests of this nature and not constituting any decision by the Committee concerning status, but as a courtesy extended to those delegations. Those arrangements would apply, mutatis mutandis, to meetings of the Preparatory Committee for the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space.

If I hear no objection we shall proceed in the same way in respect of the present requests.

Mr. KOLOSOV (Union of Soviet Socialist Republics)(interpretation from Russian): The Soviet delegation cannot consider the letter from the Permanent Representative of so-called Democratic Kampuchea. As everyone knows, only the Government of the People's Republic of Kampuchea can represent the interests of the people of Kampuchea. The representative of so-called Democratic Kampuchea does not represent the genuine political authorities and his participation as an observer in our Committee's work would seem to us not to be reasonable. Therefore, our delegation proposes that consideration of his request be deferred at this session of the Committee.

Mr. MAENNIG (German Democratic Republic): It is my delegation's position too that only a representative of the People's Revolutionary Council of the People's Republic of Kampuchea is entitled to speak in the United Nations on behalf of the people of Kampuchea. This position which was expressed by my delegation on 21 September in a plenary meeting of the General Assembly at its thirty-fourth session (see A/34/PV.4, p. 11), has not changed in the least.

I support the proposal made by the representative of the Soviet Union.

Mr. DASHTSEREN (Mongolia): My delegation would also like to request you, Mr. Chairman, not to take a decision at this moment as to whether the representative of so-called Democratic Kampuchea may participate. The position of my delegation with regard to the representation of Kampuchea is well known, and we hold the view that the People's Revolutionary Council of the People's Republic of Kampuchea is the sole representative of the Kampuchean people. That is why only the People's Revolutionary Council of Kampuchea has the right to represent the people of Kampuchea in an international forum, that is, in our Committee. Therefore, I support the proposal of the Soviet Union to defer the decision that you intend to make.

Mr. BUDAI (Hungary) (interpretation from Russian): Our delegation's position with regard to the representation of the Kampuchean people and their Government is well known. That is why I should like to support the proposal of the representative of the Soviet Union that examination of this question should be deferred.

Mr. KARAKASHEV (Bulgaria) (interpretation from Russian): The Bulgarian delegation feels that it would be appropriate to postpone consideration of the request of the Permanent Representative of Democratic Kampuchea. We have frequently stated our position with respect to the representation of the Republic of Kampuchea and we feel it would be appropriate and, indeed, more useful if we were to postpone consideration of this matter at this point.

Mr. ERNEMANN (Belgium) (interpretation from French): I imagine many other delegations greatly regret, along with us, that this debate is taking place and that the delegation of the Soviet Union, followed by many other delegations as usual, is upholding a viewpoint that we think would be worthy of the skills of the best jurists. We feel that the Soviet delegation usually upholds its views with greater authority.

(Mr. Ernemann, Belgium)

How can we here in the United Nations claim that the representative of Democratic Kampuchea is not entitled to his seat? Democratic Kampuchea is a valid State Member of the United Nations like other Members, and it is not for us in this body to challenge a position that has been upheld by the General Assembly, as everyone is aware.

Last Friday, our Committee accepted the requests of two countries to take part in our work following the accepted formula, and it seems to me that that precedent could be invoked by any other State Member, whatever may be the evaluation of its specific Government. It seems to me that the requests of Cuba and Democratic Kampuchea should be dealt with in the same spirit and on an equal footing, as should any other requests that may be subsequently addressed to this Committee. It is perhaps a pity to have opened the doors to this Committee to outsiders, but this was decided, very democratically, a few days ago. Now the precedent is established, and it seems to me that such requests should be accepted without debate.

We now then have the question of a proposal to defer consideration of this question, and I think that the Committee must immediately take a decision on the two requests: that of Democratic Kampuchea and that of Cuba. If it is deemed necessary to hold a vote, then we will go along with that although we think that would be a pity. We think that requests to participate in the work of this Committee by any other delegation should be granted automatically and freely.

Mr. VOKOVIC (Yugoslavia): We now have a situation where we have to make a crucial decision that may have very significant consequences for the future work of our Committee and for the future of the United Nations as well. Are we going to accept the principle that some States Members of the United Nations that have been fully recognized by our Organization as Members have a different status in this Organization or not? I think that this is a very serious problem. My delegation could not accept the view that certain States have more rights than other States Members of the United Nations. We will therefore support the principle which has already been adopted by this Committee that Member States which have expressed their interest in participating in the work of our Committee as observers should be given the opportunity to participate in that status. Therefore

(Mr. Vokovic, Yugoslavia)

I support the requests of the representatives of Cuba and Kampuchea to be admitted to the work of our Committee.

To take a different position because a group of States does not recognize one of the applicants would be contrary to the practice of the United Nations. We, of course, respect the right of every State to recognize or not to recognize a State or the government of a State, but we cannot accept that their position on a particular case should be imposed on United Nations bodies as the general position of all Members. Therefore, I think that the best solution would be for us not to enter into a debate on this point. I do not think that this is a substantial issue on which we have to take a decision by consensus; this is a matter of procedure, i.e., a question of how we are going to proceed in our work; and if there is a need to take a decision by a vote, then I regret that we shall have to support the proposal to take such a vote, and then to move quickly to our next subject, that is, the general debate.

Mr. BODDENS HOSANG (Netherlands): It seems to me that from a purely formal point of view this is not the appropriate forum in which to discuss political questions concerning the legitimacy of the Governments of Member States. The appropriate forum in that regard is the United Nations General Assembly, and the General Assembly took a decision last year.

In my view we should maintain the tradition of this Committee not to vote. A way out could be to adhere to the decision taken by the appropriate forum - that is, the United Nations General Assembly.

I should like to add that this has nothing to do with the substance of the matter. I would repeat that this is a purely formal point of view. I might also repeat that my delegation abstained on the question of the credentials of the delegation of Democratic Kampuchea at the last session of the General Assembly. But, from a purely formal point of view, we should, as I have said, cling to the decisions of the General Assembly.

Mr. GABRIEL (Philippines): My delegation also would like to express its support for the request of the Government of Democratic Kampuchea to be an observer in this Committee.

Mr. WASIER (Indonesia): I wish to state my delegation's position. We are in favour of the Democratic Republic of Kampuchea's participating as an observer in this session of the Committee on the Peaceful Uses of Outer Space.

The CHAIRMAN: Members have heard the proposal of the Soviet Union, supported by other delegations, that we should defer consideration of the request made by Democratic Kampuchea, and they have also heard the proposal of the representative of Belgium, supported by other delegations also, that we should take immediate action not only on the question of Democratic Kampuchea but also on the question of Cuba. The matter is now before the Committee, and it must decide how to solve the problem. The representative of Belgium, supported by other delegations, has suggested that, since this is a matter of procedure rather than substance, the Committee might, if there is no other way out, proceed to a vote.

(The Chairman)

In this connexion, I should like to remind the Committee of its earlier decisions in which it placed on record its wish that it would be the aim of all members of the Committee and its Sub-Committees to conduct their work in such a way that the Committee would be able to reach agreement without the need for a vote.

Having given the Committee that reminder, I am in its hands, and I would ask it how we should proceed procedurally to resolve the matter now before us.

Mr. RICHER (France) (interpretation from French): I do not think we should continue this discussion this morning. If the members agree, I think we could perhaps defer our consideration of this matter until tomorrow morning, so that in the meantime we could make efforts to achieve a consensus. I think it would be a bad precedent for our Committee if we were to begin to make distinctions between procedural and non-procedural matters. As I see it, it is not for a functional committee to take that path. I think we could perhaps defer this matter until tomorrow morning in the hope that we might reach a consensus in negotiations in the corridors, as we have often done before.

The CHAIRMAN: The representative of France has proposed that we defer consideration of this matter until tomorrow morning. Are there any comments?

Mr. PAL (India): My delegation would support the opinion just expressed by the representative of France.

Mr. ZAMBRANO (Colombia) (interpretation from Spanish): The Colombian delegation is also of the view that for the sake of equity both the applicant States should be accepted. With a view to doing away with the difficulties that have arisen today, we feel that it would be more appropriate to postpone consideration of the applications until tomorrow. We agree with the representative of France.

The CHAIRMAN: The representative of Colombia supports the proposal made by the representative of France that we should defer consideration of this question until tomorrow morning. Is there any objection to our doing so?

Mr. KOLOSOV (Union of Soviet Socialist Republics) (interpretation from Russian): We do not object to our original proposal being changed and the Committee's deferring for the time being consideration of the letter from Democratic Kampuchea, at least until tomorrow morning. But we do not deem it possible to link the request from Cuba with that letter. We feel that the question of admitting the delegation of Cuba to this Committee as an observer could be decided upon today.

The CHAIRMAN: The question has arisen whether we should defer consideration of both requests, or only one request, until tomorrow morning. I should be grateful to have the Committee's opinion on this matter.

Mr. ZAMBRANO (Colombia) (interpretation from Spanish): Since the requests of Cuba and Kampuchea were both presented to us today, my delegation feels that consideration of both should be postponed until tomorrow.

Mr. WASIER (Indonesia): We can agree to both the proposal made by the French delegation and that made by the Colombian delegation. We support both proposals.

The CHAIRMAN: The Committee must decide whether it wishes to postpone consideration of both requests until tomorrow morning. If I hear no objection, I shall take it that it wishes to do so.

It was so decided.

GENERAL EXCHANGE OF VIEWS (continued)

Mr. SANCHEZ PENA (Argentina) (interpretation from Spanish): The Argentinian delegation would like to express its pleasure at once again attending a plenary meeting of the Committee on the Peaceful Uses of Outer Space.

We should like to congratulate you, Mr. Chairman, on your presiding over our meetings once again, and to welcome Minister Carlos Antonio Bettencourt Bueno as Rapporteur of the Committee.

(Mr. Sanchez Pena, Argentina)

I should now like briefly to inform the Committee of the activities carried out by the National Space Research Commission (CNIE) of my country, which is the body responsible for the co-ordination, promotion and planning of space activities in Argentina and for advising the President on all matters connected with the peaceful uses of outer space.

That Commission develops its specific and related activities in the centres under its authority and the satellite and balloon launching sites and in the satellite signal receiving station.

Moreover, apart from promoting and co-ordinating national space activities, the CNIE develops its own projects, which are focused on the following objectives: remote sensing of earth resources, and prospecting systems; utilization of satellites; technology of carrier vehicles; installation, operation and development of automatic platforms for the measuring of environmental parameters; development of equipment for the utilization of non-conventional energy sources; and study of the artificial modification of meteorological factors.

In order to attain these goals the Commission follows an active policy of training human resources and building up the infrastructure for the acquisition and transfer of technology.

The San Miguel Space Centre was established in 1977 on the basis of the installations of the National Observatory of Cosmic Physics, founded in 1935. It is located some 30 kilometres from the city of Buenos Aires, which makes it possible to carry on research and development in the various departments: solar physics, atmospheric electricity, economic geology, mathematics and computation, non-conventional energy sources and anti-hail campaigns. In addition, the Centre is responsible for conducting the EXAMETNET programme and for co-ordinating the launching of satellites and balloons. It is also responsible for the assembly, maintenance and processing of information from automatic data-collecting platforms.

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Another centre is the Remote Sensing Centre, comprising the satellite receiving station at Mar Chiquita, in the province of Buenos Aires, the Airfield Data Processing Centre and the centre for the analysis of visual and automatic information. The last two are located in the vicinity of the city of Buenos Aires. The main purpose of those installations is to receive, process, analyse and interpret the information transmitted by the LANDSAT satellite. The installations are also used to analyse data from airborne multichannel scanners. The rocket launching sites include CELPA Chemical, which is located near a large salt marsh, in the province of Rioja that had already been selected for rocket landings. This was the first launching site and it has been in operation since 1962. The CELPA Atlantico site is located at Mar Chiquita, in the province of Buenos Aires, and it has the support of the United Nations.

The Vicecomodoro Marambio launching site is in the Antarctic, at 63 degrees south latitude. The infrastructure allows for the launching of meteorological probe rockets and other larger investigation satellites. Since November 1979, the Commission has maintained a group of technicians at that site on a permanent basis. At the present time, that personnel is devoting its time to the installation and operation of all the tracking systems and auxiliary equipment necessary for the operation of rockets. The launchings under the EXAMETNET programme are expected to take place during the last three months of this year.

Investigation by means of stratospheric balloons started in Argentina at the beginning of the 1960s, and since then there have been many launchings of balloons by local and foreign groups.

At the present time, the balloon Division is organizing and carrying out a launching campaign with the help of a well-trained team that conducts and monitors the experiments. Balloons as large as 20 million cubic feet have been launched and have made flights of up to 10 hours' duration and longer, depending on the wind situation. At the present time we have two operational sites for these activities with balloons: one at Reconquista, in Sante Fe province, 27 degrees south, and the other in Mendoza airfield, in the western part of the country, near the Andes mountains.

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With regard to space research, we are working in the fields of astronomy, astrophysics and solar physics. The Argentine Institute of Radioastronomy and the Institute of Astroncmly and Space Physics are actively contributing in this field, together with the Department of Solar Physics of the San Miguel Space Centre.

In aeronomy, the national programme of radio propagation, the Institute of Aeronautical and Space Research and the Commission which conduct their work through their respective programmes, are the national bodies dealing with research and experimentation.

In the field of the applications of space research, the National Commission attributes great importance to teledetecting for estimating agricultural production and for prospecting for minerals and other resources. To carry out these applications, a station for receiving information from satellites has been built and is already in operation; it is located 400 kilometres south of the city of Buenos Aires, at Mar Chiquita. That location gives it the maximum coverage of the country including the continental shelf, and enables it to obtain reception free of interference and obstacles even for angles of elevation of 5 degrees, permitting a radio coverage of approximately 2,800 kilometres. Thanks to this system, it is possible to receive information from satellites in the 1.7 to 2.3 GHZ bands, so that it can receive transmissions from the present LANDSAT satellites and, will be able, in the future, to receive GOES, NIMBUS and TIROS-N transmissions.

The receiving antenna is of the parabola type with a diameter of 10 metres. Its equipment, which embodies the most advanced technology, includes computers with a very large memory capacity, and high-density recording equipment capable of recording 20 megabits per second, and other auxiliary equipment. This station can read high-density magnetic tapes and low-resolution control images. It was inaugurated on 16 April of this year. Its operation of frequency can be as high as 8 GHZ, so that it will be able to receive data from future satellites of the SPOT type and from the Thematic Mapper of LANDSAT-D, as well as others which will be launched in the future.

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The image processing plant is located in the area of Aeroparque, in the vicinity of Buenos Aires. Its most important functions are the reproduction and transformation of high density magnetic tapes from the Mar Chiquita station so as to convert them into material suitable for computers and the generation of new geometrically and radiometrically corrected final products. In addition to the most advanced computer equipment and other accessories, it contains a complete automatic photographic laboratory for colour, instruments, black and white, and an updated archive of first-generation products as well as catalogues on paper and in microfiche. This system, with its two plants, will be available to all national and foreign organizations that require its services.

Optronics equipment has also been set up to obtain high-fidelity images, based on the information recorded on high density magnetic tapes, as well as on magnetic tapes for use with CCT computers.

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The installations of the land system of data analysis have been expanded to permit better processing of data not only from the LANDSAT satellite but from the airborne multispectral scanners mounted on aircraft and ready for operation. The assembly of the airborne system for obtaining data (SAMPOI) was completed. It consists of a multispectral scanner mounted on an Air Force aeroplane.

The work in progress includes radiometry, multispectral analysis and pattern recognition. The programme of the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) on crop estimates in the pampas region and the research programme in the mining areas of East Antofalla and Cerro Atajo are in the first year of operation.

In its national programme of atmospheric data collection, the aim of the National Space Research Commission (CNIE) is to obtain meteorological and atmospheric data on remote sites, using the DCS system of geostationary satellites (GOES) or the optional LANDSAT or TIROS-N satellites.

At the present time steps are being taken to acquire a land station designed for the reception in real time of messages from the DC platforms, transmitted by means of the geostationary satellites of the GOES series.

The studies on clouds have included campaigns against hail as well as the development of specialized studies on convective clouds, microphysics, forecasting and defence. Eleven launching stations for the nationally designed CLAG II rockets have been established, and over a four-month period 100 such rockets were launched.

In the field of communications by satellite, in order to expand the facilities for handling national and international traffic, the Ministry of Communications (SECOM) is currently setting up in Bosque Alegre, in the province of Cordoba, a third antenna for communication by satellite, with a capacity of 500 circuits. SECOM has designed a domestic system of communications by satellite as an alternative to the national trunk lines, for which purposes it has rented some of the reserve capacity of the INTELSAT satellites. The system is to consist of a land station, two back-up stations and 20 smaller remote land stations with capacity for telephone, telex, television and audio traffic.

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Under the programme of technical training conducted on a continuing basis by the National Space Research Commission (CNIE), more national and international courses were given, some of which were sponsored by bodies such as the Organization of American States (OAS) and the United Nations. Those organizations drew upon Argentinian and foreign experts for their teaching staff, and the students were representatives of scientific and technical institutions throughout Latin America.

On the national level, using its own specialized professional staff and invited experts, the Commission organized courses and seminars on space science in various provinces of the country, so as to promote a harmonious development of scientific research within the country.

During 1979 the following courses were given: a course on desalinization, solar collectors and power plants (DFVLR/CNIE), held in Buenos Aires in April; a national course on the digital processing of LANDSAT images, held in Buenos Aires in April; the first regional seminar on the application and utilization of automatic platforms, held in Mendoza in June; a Latin American seminar on the applications of remote sensors in the evaluation of natural resources, held in co-operation with the OAS in Buenos Aires in June; a national seminar on remote sensors (Faculty of Engineering of the University of Buenos Aires/CNIE), held in Buenos Aires in June; the first national symposium on the analysis of LANDSAT data, held in Buenos Aires in August; a national seminar on remote sensors, held in La Plata in September; the third national course on remote sensors, held in Esquel in October; a United Nations training course on the applications of remote sensing (UN/CNIE), held in San Miguel last November.

This training policy, which is what the National Space Research Commission has to offer to other countries in the context of Technical Co-operation among Developing Countries (TCDC), is being given priority, in accordance with the guidelines contained in the Buenos Aires Plan of Action. That contribution can be summarized as follows: programmes of artificial weather modification, which included a number of places for on-the-job trainees (experimental), on-the-job training in solar physics, with the possibility of using the instruments and equipment of the National Observatory of Cosmic Physics at San Miguel; design and evaluation of equipment for the use of solar energy for the following purposes: (a) desalinization of water for rural communities; (b) direct generation of electrical energy through photovoltaic panels; (c) the

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design of test banks for solar collectors; (d) a digester heated with solar energy for the production of biogas; (e) the planning and design of solar heating systems for buildings. The programme also includes on-the-job training as part of the activity in the field of radar-meteorology applied to the various programmes of artificial weather modification; training in the field of satellite technology, including mission analysis and determination, satellite design, orbit analysis, space materials, systems of behaviour control, on-board energy systems, telemetry and telecommand, the acquisition and analysis of data, and the utilization of automatic platforms - all with a view to establishing the framework for a future national system of communications and satellite applications; training in the operation of satellite reception stations, in the processing of satellite images by computer and manually, in automatic and visual analysis, particularly in agriculture for crop forecasting, and in the areas of geology, cartography and water pollution, in digital analysis techniques for processing LANDSAT images; and in the preparation and/or training for the operation of geodesic satellite stations.

In the Latin American region the interaction between the National Space Research Commission and other institutions has increased considerably, particularly as regards advising and training in fields such as remote sensing, the use of solar and wind energy, campaigns against hail, satellite technology, and so on - all of which permits flexible co-operation at bilateral and multilateral levels.

Beyond the regional framework, in 1979-1980 the Commission continued its active technological and scientific co-operation, in line with pre-existing agreements with the United States, France, the Federal Republic of Germany, Italy, Peru, Canada and international organizations.

The Commission also began to conduct negotiations with the National Space Development Agency (NASDA) of Japan for the future implementation of an agreement on co-operation in the field of space activities.

As to international organizations, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has officially pledged its collaboration in the programme on the use of non-conventional sources of energy, such as wind. For its part, the Organization of American States (OAS) is assisting with the Commission's educational programme, as is the United Nations Organization, which provided assistance for a course on remote sensing.

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Lastly, it is important to bear in mind the fact that a system for monitoring natural resources is not a new concept. What is new is that the technology for data collection and processing and the sciences involved in administrative decision-making (management) have developed so much during the last three decades that it is now possible to introduce systems for regulating, managing, evaluating and classifying resources on a large scale, at the national and international levels.

The viability and the over-all capabilities of remote sensing have been demonstrated with the assistance of the experimental satellite systems that have been tried out in the last few years, some of which are already operational. The repetitive and synoptic data which can be obtained through remote sensing systems, for use in regulating the available resources, can give States a very solid basis for the planning and management of natural resources.

Consequently, the delegation of Argentina is aware of the importance that this subject has for developing countries, and particularly for Latin America. We therefore feel that we are in a position to set up a regional remote sensing centre, with a view primarily to training manpower in this field. To that end, the Republic of Argentina, through the National Space Research Commission, reiterates its proposal that the regional remote sensing centre be located in Argentina.

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In recent years, there has been a steady increase in the interest of developing countries in satellite data obtained by remote sensing and in its use for various purposes connected with the evaluation, development and management of resources. Thanks to various kinds of technical and financial assistance, many countries have set up bodies with a view to carrying out experimental programmes on the use of data obtained, for example, through the LANDSAT programme.

The reception and processing of information obtained by means of orbital platforms still requires heavy financial investment in national bases. Consequently, installations now in existence or under construction should become accessible to other countries, taking into account the wide regional coverage of a single receiving station. In accordance with this line of thought, Argentina is prepared to share with other countries its installations for receiving and processing data on natural resources obtained through satellites. Bearing in mind the basic notions of sharing technology among nations and technical co-operation for development, Argentina is offering the use of its installations with the intention of participating in a regional programme.

The long-term goal of this project is to intensify technical co-operation and to develop the capacity of the countries of the region for remote sensing, particularly from satellites, in the evaluation, development and management of their natural resources.

The immediate goals will be: to keep the region - that is to say mainly the countries - informed of important developments and plans in remote sensing, both within the region and outside it; to promote technical co-operation in research, development and training in the application of remote sensing; to assist developing countries in obtaining adequate support for activities aimed at the effective use of remote sensing techniques.

The programme of work of this project is based to a large extent on the fact that many countries in this region already possess equipment and experience in the field of remote sensing and that there exists in the region a major capacity for observation and training which might be developed as the project's focal point.

We hope that the countries will obtain funds from bilateral and international sources for the additional equipment required in their research and development programmes, and that the purpose of the project will be to provide a mechanism for the effective exchange of scientific information, for

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the organization of meetings of experts and for intensive training in remote sensing. We also plan to invite experts from outside the region to participate in such meetings and we further hope to organize training courses at various levels.

Mr. LA ROCCA (Italy): As this is the first time that I am speaking during this session of the Committee, I should like to avail myself of the opportunity to express my personal satisfaction and that of my delegation at seeing you, Mr. Chairman, presiding once more over our deliberations. I am sure that under your wise and experienced guidance our work will prove fruitful and successful and that further progress will be made in the task entrusted to us.

I should also like once again to pay a tribute to the contributions made to this Committee over a number of years by the Chairman of the Scientific and Technical Sub-Committee, Mr. Carver of Australia, and by the Chairman of the Legal Sub-Committee, Mr. Wyzner of Poland, as well as by the members of the Secretariat.

One of the most important subjects which will be dealt with during this session is the preparation of the second United Nations Conference on the Exploration and Peaceful Uses of outer space. In its capacity as a preparatory body, our Committee should exert every possible effort to expedite successfully the consideration of this extremely important part of our work. Clear and timely indications on the various items of the agenda will contribute to the full success of the Conference, which is all the more important for being directed primarily to the benefit of the developing countries.

I do not wish at this stage to comment on specific questions relating to preparations for the Conference, but I should like briefly to mention the issue of its venue. My delegation noted with great interest document A/CONF.101/PC/2, in which Austria informed the Secretary-General of its decision to invite the United Nations to hold the second United Nations Conference on the Exploration and Peaceful Uses of Outer Space in Vienna.

Italy supports the candidacy of Vienna. Apart from the ties of friendship and co-operation between Italy and Austria, we have always maintained that a United Nations city such as Vienna is the best site for conferences held under

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the auspices of our Organization, both because of the facilities available and for the purpose of limiting overall expenses. We hope that this candidacy will be able to achieve the necessary consensus in the Preparatory Committee.

I should like now to turn briefly to some of the activities concerning outer space undertaken by my country during the past year. In the field of remote sensing of the earth's resources and environment by satellite, Italy is continuing to work on high-resolution infrared sensors. The Fucino tracking station, which is the largest in Europe, is also an important part of the European Space Agency network for the EARTHNET programme.

Feasibility studies and, inter alia, the development of a synthetic aperture radar system are under way. We are also continuing to map water resources for agriculture and forestry, and a related photogrammetric study has begun. Italy is also particularly active in the fields of meteorology and communications.

The recently approved National Space Plan, among other initiatives, has identified telecommunications as a field of major interest to Italy. Activities related to it are undertaken mainly through the SIRIO satellite programme. The goal is to meet Italian and European requirements for the near future and to develop an industry for both the European and developing countries' markets. Italy is also continuing its efforts to gain access to a direct television broadcasting system and to develop technologies for domestic and regional communications systems.

In addition to this, we are participating in the European Space Agency programmes Experimental Geostationary Communication Satellite, EARTHNET and STELLA, in the ARIANE project, and we are continuing to implement and finance Italian experimental groups for the SPACELAB payload.

While reserving my delegation's right to illustrate its views in greater detail during forthcoming discussions, I should like now to review briefly the Committee's agenda. Remote sensing and direct television broadcasting by satellite have once again absorbed a large share of the efforts of both Sub-Committees.

On the first of these points, Italy confirms its support for the principle of unrestricted dissemination of data and information resulting from remote sensing activities. This principle is in accordance with international law and at the same time provides the best safeguard for all countries against the possibility that one sensing country, or a group of them, might use the information obtained

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to the detriment of the sensed countries. Should guidelines and measures in the field of remote sensing be agreed upon, they should be flexible and pragmatic enough to preclude hasty restrictions likely to undermine or postpone beneficial applications of those activities.

(Mr. La Rocca, Italy)

Of course, sensed States should be entitled to timely and priority access to data obtained by remote sensing; but they should also agree to reconcile their legitimate national interests with the general interest of mankind as a whole in order to increase opportunities for the development of the earth's resources on a fair and equitable basis and in close international co-operation.

While Italy's policy has always been to make available to any and all interested parties both the data received by the Fucino ground station and its facilities for processing them, we also continue to support and contribute to the remote sensing programmes carried out by the Food and Agriculture Organization of the United Nations (FAO), particularly its training initiatives for developing countries. My Government is pleased at the success of the last training course on water resources, held in Rome from 18 May to 7 June. I take this opportunity to express our appreciation for the excellent work done in this regard by Mr. Badang and Mr. Howard.

We also wish to congratulate FAO on establishing a Centre for Remote Sensing Applications, and to recommend that FAO continue to strengthen its Centre in Rome.

Concerning the issue of direct television broadcasting by satellite, Italy reiterates its position that all efforts aimed at regulating such activities should be made within the limits of full respect for the principle of the free flow of information and ideas, on the understanding, of course, that this principle would be responsibly implemented. We look forward to further and more detailed discussions in this field both in this Committee and at the next session of the Legal Sub-Committee.

Concerning the definition and delimitation of outer space, we understand that the consultations and negotiations held so far have contributed to a better understanding of the problem. My delegation continues to believe that there is a need to establish, through international agreement, a demarcation line between air space and outer space. Of course some elements, such as the definition of "space object" and the formal recognition of the free transit of those objects through air space, must be agreed upon prior to any general agreement on the question of delimitation.

(Mr. La Rocca, Italy)

The Italian delegation is most concerned at the lack of substantive progress made on the issue of nuclear power sources in outer space. The utilization of nuclear power sources has created a new situation with a risk probability which is, in our view, too high. It is the irrefutable task of the international community to exert every possible effort to establish in this field a legal régime able to guarantee to all concerned parties -- in fact, to all States -- the adequate assurances needed in regard to accidental re-entry of space objects equipped with nuclear power sources.

We expect that this matter will be given high priority and that the procedural solutions adopted will be those most conducive to an effective negotiation on this subject.

Outer space, with the enormous possibilities it offers in almost all fields, must remain an area dedicated to the development and benefit of all mankind.

International co-operation and research for peaceful uses are activities which must be promoted if we are to avoid a possible arms race involving ever more sophisticated weapons in outer space, and thus keep the door of this "new frontier" open to all humanity.

In this context I should like briefly to recall that Italy proposed to the Committee on Disarmament, on the basis of paragraph 80 of the Final Document of the special session devoted to disarmament, that possibilities be explored to supplement the existing legal system -- that is, the 1967 Treaty -- with new provisions in order to ban from outer space all activities other than peaceful ones or those in any way related to the safeguarding of balance and security, such as the verification of disarmament agreements.

In our view, this proposal, which could be dealt with at an appropriate stage in the relevant forum, may provide a concrete basis for future discussions.

Mr. SUCHARIPA (Austria): Ever since its establishment the Committee on the Peaceful Uses of Outer Space has, through its manifold activities, successfully managed to keep abreast with the rapid developments in outer space research and technology and has at the same time exerted considerable efforts to anticipate the further evolution of space science in order to create the necessary international frame to ensure its most fruitful application for the benefit of the international community as a whole. The Committee and its two Sub-Committees have established an impressive scientific and legal basis for the orderly conduct of outer space activities. They have contributed to a broader awareness of both the problems involved in these activities and the ways and means by which these activities can best be employed for the practical solution of a vast area of national and international concerns. The annual review of activities and achievements in the exploration of outer space carried out in this Committee constitutes an important instrument to safeguard the necessary link between our deliberations here and the constant evolution of space science.

Therefore, the Austrian delegation is convinced that the presentations of the latest achievements in outer space activities which are offered to this Committee not only by the major space Powers but also by an increasing number of other States engaged in such activities is a valuable contribution to our work. A brief survey of the "Review of national and co-operative international space activities for the calendar year 1979" (A/AC.105/264) which has, as in previous years, been compiled by the Secretariat, shows clearly the multitude and the variety of relevant projects carried out by many countries, both members and non-members of the Committee. Austria's own experience in this field, as reported in document A/AC.105/264, attests to the significance of space science and research as well as their various applications for a small country. On the national level Austria has, for instance, carried out projects in remote sensing relating to snow and ice monitoring, air and water pollution monitoring and the monitoring of damage in forestry and agricultural areas. Other projects made use of space science for meteorology, communications, geodesy and photogrammetry. Scientific research has been carried out in the fields of ionospheric investigations, planetology of the earth and a number of other areas. Austria has also strengthened its participation in various international co-operative programmes. In this connexion the successful completion of the

(Mr. Sucharipa, Austria)

negotiations between Austria and the European Space Agency on Austria's associate membership is of particular relevance. Austrian industry and research institutes are involved in hardware development and studies resulting from the SPACELAB and telecommunication programmes of the European Space Agency.

On the international level, this last year has seen further important developments in the peaceful exploration of outer space. Again the methods and technologies involved have proved to be among the most innovative forms of scientific progress. In this regard the continuation of the SOYUZ programme, the probing into deeper space carried out through the relevant space programmes of the United States as well as the further development of the ARIANE launcher deserve special mention.

The important role of the Outer Space Committee as the focal point for international co-operation in outer space is highlighted by the successful implementation of the impressive space applications programme carried out by the Secretariat under the guidance of the Committee. Austria is convinced that the United Nations Space Applications Programme, including in particular the seminars on remote sensing application and satellite communications, contributes in a most effective way to the development of activities in the area of space applications, in particular in developing countries.

(Mr. Sucharipa, Austria)

In this connexion I am glad to inform the Committee that Austria has offered to the United Nations space applications programme two scholarships in the field of satellite communications for interested participants from developing countries.

The assessment of the work that has been accomplished by the two Sub-Committees has traditionally been one of the most important elements in the deliberations of this Committee. Although only limited progress in the various issues before the two Sub-Committee has been achieved this year, the Austrian delegation for one appreciates the constructive discussions which have been held and trusts that they will facilitate reaching agreements in the near future.

The deliberations on the question of remote sensing both in the Scientific and Technical and in the Legal Sub-Committees have again revealed the complexities of these issues which touch upon matters which not only are of a highly technical nature but also raise a number of political and legal problems which, apparently, are difficult to resolve. In this connexion the progress - although only limited - which the Legal Sub-Committee has been able to achieve, in particular in its consideration of the draft principles relating to timely and non-discriminatory access to primary data as well as the principle dealing with the dissemination of data relevant to natural disasters, should be seen as encouraging proof of the existing possibility to bridge the gap between the different positions which have been expressed in the past.

Another issue which has been dealt with by both Sub-Committees is the question of the use of nuclear power sources in outer space. In the view of the Austrian delegation, the treatment of an issue as sensitive as this should serve as a good example of the inherent possibilities offered by the unique structure of the Outer Space Committee and its two Sub-Committees, a structure which allows for in-depth discussions of basic scientific and technical issues in parallel with the discussion of the legal implications.

On the basis of its work under this item the Scientific and Technical Sub-Committee has identified a number of subject areas for further study. Austria attaches particular importance to the elaboration of an inventory of the safety problems relating to the use of nuclear power sources in outer space

(Mr. Sucharipa, Austria)

as well as to the further consideration of problems connected with appropriate notification with regard to the use of nuclear power sources. The review undertaken by the Legal Sub-Committee of the rules of international law relevant to the use of nuclear power sources in outer space has revealed a strong feeling on the part of many delegations, including my own, that the existing legal framework was inadequate to cover in a generally satisfactory manner all aspects of the question which arise through such activities.

Of course, to some extent it is true that, with the help of the technique of analogy, certain existing general principles of international law as well as some specific provisions in the codified law of outer space - such as article IX of the 1967 Outer Space Treaty - can be applied also in the context of nuclear power sources. However, in the view of the Austrian delegation, the particular hazards involved in the use of nuclear power sources in outer space make it imperative to elaborate specific norms in this field. As was done in other cases in the past, this work could start with the drafting of legal principles which should govern the use of nuclear power sources in outer space. In the process of such a drafting exercise, the Legal Sub-Committee should constantly bear in mind the relevant scientific foundations which are to be provided by the ongoing work done in the Scientific and Technical Sub-Committee. Furthermore, the Legal Sub-Committee will have to use the existing general rules and specific regulations, as far as they are deemed to be applicable to the specific case of nuclear power sources, as a basis for its deliberations.

My delegation expresses the hope that, in the course of this session, the necessary consensus will emerge to allow the Legal Sub-Committee to take up as a priority item the consideration of legal principles relevant to the use of nuclear power sources in outer space. In this connexion it might also be appropriate to consider the safety aspects of space missions, in particular those involving high risks, on a more comprehensive level and to give increased attention to technical, legal and political parameters for reducing the possibility of damage resulting from such missions.

The consideration of the question of direct television broadcasting by satellites has unfortunately not produced any tangible chance for an agreement on those issues where the basic differences in the positions of various delegations

(Mr. Sucharipa, Austria)

remained as in earlier sessions. In the view of my delegation, it might be appropriate or perhaps even necessary for this Committee and the Legal Sub-Committee to undertake a thorough review of the question of direct broadcasting by satellite as a whole and, in particular, to take into account a number of important developments in the technical sphere that have occurred since this item was included in our agenda for the first time.

This year again increased interest has been manifested on the question of definition and delimitation of outer space. As in the past, my delegation is prepared to take a flexible attitude in this regard and would be in a position to join any consensus that might be developing. On the somewhat related question of the geostationary orbit, my delegation reiterates its opinion that the ever-increasing population of satellites in this orbit must be taken into account in our future work. Thus we share the view that a more thorough examination of the relevant problems should lead to the formulation of appropriate understandings in order to ensure the most efficient and economical means of using this orbit, including equal access for all interested States.

The review of this year's activities relating to outer space would be incomplete if one did not also refer to the fact that the Treaty governing activities of States on the moon and other celestial bodies, which has been opened for signature by the thirty-fourth session of the General Assembly, has already been signed by a number of countries, including Austria. This convention constitutes a major contribution to the ongoing efforts for the codification of international space law. It is therefore our earnest hope that in the near future further States will be prepared to start the necessary process leading to their adherence to this Treaty.

Together with an increasing number of other delegations, the Austrian delegation, both in this Committee and in other forums, has in recent years referred to the most disturbing phenomenon posed by the proliferation of the arms race into outer space. Recent developments in the relevant programmes of both the two major space Powers cannot but increase our concerns in this field. These developments seem to be moving towards a new phase in space militarization characterized by the emplacement of weapon systems in space around the earth and towards the refinement of capabilities to interfere with observation satellites and

(Mr. Sucharipa, Austria)

other space systems. The unfortunate fact that earlier bilateral negotiations on the restriction of anti-satellite systems between the United States and the Soviet Union have not been resumed until now is a further aggravating factor. In this situation it is our conviction that this Committee will have to pay increasing attention to these dangerous developments so as to help to ensure that outer space will remain a peaceful environment.

The review of the activities carried out this year by the United Nations in the field of outer space demonstrates the seriousness with which a vast area of important issues has been addressed.

(Mr. Sucharipa, Austria)

Unfortunately only little concrete progress in the work of the two Sub-Committees can be reported this year, but we do hope that the deliberations in them, together with our discussions here in the parent Committee, will constitute a solid basis for tangible progress in the near future. At the same time, the Outer Space Committee will have to continue to exert its best efforts to remain a body which is inherently future-oriented and constantly anticipating future events. The further development of space science constitutes a constant challenge to this Committee, and we are confident that it will be able to live up to that challenge.

In conclusion, allow me to express my delegation's sincere gratitude for the most valuable contribution which the out-going Chief of the United Nations Outer Space Division, Mr. Perek, has over the past years made to our work in this Committee. My delegation has always enjoyed working with Mr. Perek, and we will certainly miss the wise counsel and guidance that he was prepared to offer us.

We also wish to thank Mr. Carlos Garcia for the untiring services he has rendered to this Committee in his capacity both as Rapporteur and as representative of his country. At the same time we extend our warmest welcome to his successor, Mr. Carlos Bettencourt Bueno.

Mr. KRAUSE (Federal Republic of Germany): Mr. Chairman, to begin with I should like to express my delegation's pleasure at seeing this Committee again working under able and wise guidance.

Let me convey our thanks to the Chairmen of the two Sub-Committees, Mr. Carver and Mr. Wyzner, and to all the other members of the Bureau for their efficient and dedicated work.

We should like to extend our gratitude to our Rapporteur, Mr. Carlos Garcia, and to welcome his successor, Minister Carlos Antonio Bettencourt Bueno, Brazil's Deputy Permanent Representative to the United Nations.

Last, but indeed not least, we want, like others before us, warm-heartedly to present our best wishes for his future to Mr. Lubos Perek. We have always appreciated his great knowledge and his dedication to our work. We shall miss his open-mindedness and his generosity.

(Mr. Krause, Federal
Republic of Germany)

Allow me now to describe my country's most recent activities in outer space.

The major thrust of German space activities last year was again in the area of international co-operation multilaterally within the European Space Agency (ESA) and on a bilateral basis, especially with the United States and France. Development of the manned space laboratory SPACELAB has been almost completed. Integration and testing of the flight model have been started. The engineering model is scheduled to be delivered by the end of this year.

In February last a contract was signed on the production of a second flight unit for NASA. The building of an additional flight unit for the SPACELAB instrument-pointing system is envisaged. Preparations were started for a complete German Materials Mission. Smaller autonomous SPACELAB payloads are currently being developed. These payloads are to be operated on an experimental platform. They will be released by space shuttle and later taken on board again.

On its initial flight, on 24 December 1979, the European ARIANE launcher functioned with utmost precision. Our participation in the development of the launcher included work on the structures and propulsion systems as well as on the integration of the second stage. Unfortunately, a second launching was unsuccessful. In April 1980 the Federal Republic of Germany acceded to an agreement concluded by European Governments on the production, launching and marketing of ARIANE via an independent enterprise, Ariane Space.

At the end of April 1980 an agreement was signed with France on technical and industrial co-operation in the development and manufacture of two television broadcasting satellites to be launched by the carrier-rocket ARIANE. The German and French organizations concerned will test one satellite each in a preoperational phase for technical test programmes on a national scale. Franco-German co-operation, which started successfully with the development of the communications satellite SYMPHONIE, is thus being continued.

Additional transmission experiments and demonstration projects were carried out in Europe, Africa and Asia with the two Franco-German experimental SYMPHONIE telecommunications satellites, which have now been operating successfully for five-and-a-half and five years respectively. Also involved in these projects was the European Experimental Telecommunications Satellite (ETS).

(Mr. Krause, Federal
Republic of Germany)

Moreover, the Federal Republic of Germany participates in the development and construction of the European Regional Communications Satellite System (ECS), which is to be operated by the EUTELSAT organization, which represents 17 European postal administrations. We have also been active in the development of two MAREKS Maritime Radio Satellites within the framework of the European Space Agency (ESA). Several German ships have been equipped with maritime broadcasting satellite systems, which were tested in the course of a demonstration programme extending over a period of roughly two years.

In view of the world-wide importance of remote sensing of the earth, the Federal Republic of Germany endorses the planning of a relevant ESA programme to be co-ordinated with similar satellite projects pursued by other countries. We are therefore participating in a preparatory programme initiated by ESA. In our view, application orientation should in the future be linked with geoscientific basic research where that is expedient in terms of measuring techniques. The Federal Republic of Germany participates in the evaluation of American satellite data via the ESA EARTHNET station network. An image producing microwave sensor - synthetic aperture radar (SAR) - for operation in the climatic conditions that prevail in northern latitudes is currently being developed for a SPACELAB flight. Another major project concerns a metric camera and a twin-frequency scatterometer for use during the Microwave Remote Sensing Experiment (MRSE) on the first SPACELAB flight. The launching of a second satellite for picture transmission via METEOSAT is now being prepared.

Our activities in space science also concentrate on international co-operation. The two United States-German HELIOS probes continued to supply interesting data during their fifth and fourth year of operation. Originally they had been scheduled to operate for 18 months only. It was thus possible to obtain data during a period extending from a solar minimum to the solar maximum which occurred in 1979-1980.

We are also glad to say that the six German experiments and the development of a propulsion unit for the United States-German GALILEO Jupiter probe are progressing according to schedule. Other projects under development are an infra-red telescope for astronomical and aeronautical tasks and

(Mr. Krause, Federal
Republic of Germany)

telescopes in the gamma and EUV ranges for operation in SPACELAB and in satellites. Systematic testing of ESA's X-ray satellite EXOSAT continues under the direction of a German firm.

We have conducted successful research with high-altitude sounding rockets. Our national programme now includes also an X-ray satellite for mission and feasibility studies.

I should like to add that the European Space Agency has decided to embark on a major scientific mission called HIPPARCOS. A further mission is still pending.

I should now like to add a few remarks on the items under discussion at this session of our Committee.

On remote sensing, technological developments during the past few years have opened up new and significant possibilities in the exploration of our planet for the benefit especially of developing countries. The Federal Government will continue to contribute its share to research and development in this new area within the scope of its own space research programme and also internationally within the framework of the European Space Agency. The Federal Government hopes that the work of the Sub-Committees will be further intensified so as to lead to an agreed text to be presented to the General Assembly in the foreseeable future.

(Mr. Krause, Federal
Republic of Germany)

As to direct broadcasting by satellite, we continue to believe that human rights such as freedom of opinion, freedom of the press and the free flow of information regardless of frontiers, as well as access for everybody to information from all sources, offer the best possibilities for education, instruction and judgement, thus promoting better understanding among people and securing peace in the world. The Federal Government's attitude is unchanged in that regard. We are committed to the principle of the free flow of information not only by our Constitution but also by the provisions of the relevant instruments of international law: article 19 of the Universal Declaration of Human Rights, article 19 of the International Covenant on Civil and Political Rights, article 1 of the Charter of the United Nations Educational, Scientific and Cultural Organization (UNESCO) as well as the UNESCO Declaration on the mass media and the Final Act of Helsinki. We therefore continue to regard the free flow of information as one of the basic tenets to be embodied in the principles governing the use of direct television broadcasting by satellite.

Allow me to inform this learned audience that the Council of Europe's Committee on Mass Media has very recently submitted to the Committee of Ministers two important reports on the role of the State with regard to the media and on the international aspects of the free circulation of information. May I, with the kind permission of the Chairman, quote two relevant conclusions from those reports unanimously adopted by the delegations of the 21 member States of the Committee of Ministers of the Council of Europe:

"Pursuant to Article 10 of the European Convention on Human Rights freedom of information, which should be understood as including the freedom to receive, seek and impart information and ideas, should be granted to all persons and its exercise guaranteed without interference by public authority and regardless of frontiers. Therefore foreigners should also benefit from this and those working in the field of the media should be given the possibility to make use of all desirable facilities in the exercise of their profession.

(Mr. Krause, Federal
Republic of Germany)

"According to the principle of freedom of information and of the free circulation of information, the State cannot be held responsible for the content of information, whether this be at the national or international level. It follows from that that interference and pressure from foreign States which relate to the contents of information imparted by mass media and jeopardizing the exercise of freedom of information are inadmissible."

In this context, I wish to emphasize that my country, while advocating this free flow of information, is fully aware of the imbalance in the flow of information from North to South. We shall therefore continue our considerable efforts to improve this situation by supporting training facilities for journalists and technicians as well as by offering technical aid for hardware and software, for the benefit of developing countries which desire it, and for their efforts to establish national and regional news agencies and other information facilities.

With regard to the use of nuclear power sources in outer space, the Federal Republic of Germany has already advocated on earlier occasions that provisions concerning the use of nuclear power sources for satellites be incorporated into the current body of international law. The key objective of the work of this Committee is to ensure maximum protection of human beings and their environment, which includes both the earth and outer space, against the risks inherent in the use of nuclear power sources. Given the magnitude of those risks the Federal Republic of Germany advocates: information on the full extent of the danger inherent in the use of nuclear power in outer space for the world population and its environment, with detailed descriptions of the nuclear power sources employed in launching space objects; adequate and timely information in the event of a space object's going out of control, so as to make it possible to take effective precautionary action; and the maximum possible elimination of risks such that nuclear power sources are employed in outer space only if the supply of energy from other sources proves not to be possible.

In conclusion, I should like to assure the Committee of my delegation's continued active co-operation in the search for constructive solutions to the problem before us.

Mr. NISIBORI (Japan): My delegation is pleased to join other delegations in expressing its satisfaction in seeing you, Mr. Chairman, once again in the Chair in this Committee and also in thanking you for your lucid statement on the work over the past year of our two Sub-Committees. We are convinced that under your wise and experienced leadership our deliberations at this session will be most fruitful.

Before taking up the items on our agenda, I should like to touch briefly on Japan's recent efforts in space development. Since the launching in 1970 of OSUMI, Japan's first satellite, about 20 satellites have been launched and have successfully carried out various programmes of observation and experiment.

Among them, for example, are a medium-capacity communication satellite for experimental purposes (CS), which is supplying data on satellite communications experiments by using 20 GHz and 30 GHz bands and a medium-scale broadcasting satellite for experimental purposes (BS), which is supplying useful data on satellite broadcasting experiments by using 12 GHz and 14 GHz bands. Of particular note is the HIMAWARI, Japan's geostationary meteorological satellite (GMS), which is in full operation and is being used for daily weather forecasting. The photographic data gathered by the GMS are relayed by a transponder to medium-scale data utilization stations (MDUS) in 5 Asian and Pacific countries, and to small-scale data utilization stations (SDUS) in 9 Asian and Pacific countries. An additional 10 countries are currently planning to join this SDUS system.

Unfortunately the experimental communication satellite, which has attracted world attention as the first satellite in the development of a millimetre wave space communication system by using 32 GHz and 35 GHz bands, has not yet been successfully injected into geostationary orbit, although attempts to do so were made in February 1979 and again in February 1980. However, we are now investigating a follow-up satellite project which will conduct as early as possible a millimetre wave space communication experiment using the most recent technologies available.

(Mr. Nisibori, Japan)

Also, between 1981 and 1985, Japan will launch three scientific satellites, two engineering test satellites and several operational satellites (GMS-2, CS-2, BS-2a and BS-2b). We are also developing the Japanese Marine Observation Satellite, which will be launched in the fiscal year 1984.

Furthermore, the Telecommunication Satellite Corporation of Japan, which has been called Telesat Japan, was established last August in preparation for the future control and operation of domestic communication satellites and broadcasting satellites.

In the field of remote sensing, an Earth Observation Centre was established in Hatoyama, near Tokyo, in October 1978 for receiving image data from LANDSAT-2 and LANDSAT-3, and, since January 1979, it has been operating the data processing system and producing films, photographs and magnetic tapes for dissemination to many domestic as well as foreign users. Japan has been making efforts to strengthen international co-operation in this area, particularly with the developing countries.

In addition, as you mentioned, Mr. Chairman, my country will host a United Nations seminar on remote sensing applications to be held in Tokyo in September 1980 for the States members of the Economic and Social Commission for Asia and the Pacific (ESCAP). Preparations for the seminar are well under way thanks to the diligent efforts of Mr. Padang, the United Nations Expert on Space Applications.

Another major space-related conference - the thirty-first General Assembly of the International Astronautical Federation (IAF) - will be convened in Tokyo from 22 to 27 September. It is the first large-scale conference on the peaceful uses of outer space and related activities to be held in Asia. An estimated 800 specialists from all over the world in the fields of space science and technology will participate in the conference. Further, it is expected that more than 300 papers will be submitted covering a wide range of topics relating to space science and technology. Japanese scientists and engineers have already submitted to the secretariat of the IAF papers on a variety of activities, particularly on the results of its satellite communications and satellite broadcasting experiments. It is hoped that the deliberations at this Conference will be helpful to the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, which will be convened in 1982.

(Mr. Nisibori, Japan)

Before turning to the agenda, I should like to express our appreciation for the able guidance of the two Sub-Committee Chairmen, Professor Carver of Australia and Ambassador Wyzner of Poland. We note that considerable progress has been made in the deliberations of the Sub-Committees on some priority agenda items, such as United Nations programmes on space applications, preparations for the Second United Nations Conference on Outer Space and the use of nuclear power sources. At the same time, however, we regret to note that in other fields, particularly remote sensing and direct television broadcasting service, no substantial progress has been made.

My delegation would like to emphasize the importance of seeking solutions to these problems by holding careful and thorough deliberations. We therefore particularly support the recommendation that remote sensing should remain as a priority item on the agendas of both Sub-Committees and, in addition, that television broadcasting service be discussed as a priority agenda item at the next session of the Legal Sub-Committee.

I should like at this time to comment on some of the major items on the agenda now before us. With regard to the use of nuclear power sources in outer space (NPS), this Committee, as the focal point for international co-operation in the use of outer space, has a vital role to play in reflecting the legitimate concerns of the international community as it deals with this relatively unexplored and tremendously difficult question.

My delegation notes that, although the Working Group of the Scientific and Technical Sub-Committee has continued its intensive consideration of the technical aspects and safety measures relating to the use of nuclear power sources in outer space, it could not conclude its work. We therefore support the recommendation that arrangements be made for it to meet for one week during the next session of the Sub-Committee so that it can continue studying the working papers already submitted as well as those that may be submitted by the next session of the Sub-Committee.

With regard to the work of the Legal Sub-Committee, my delegation is pleased that this year for the first time the question of the use of nuclear power sources in outer space was considered under a separate agenda item, namely, "Review of existing international law relevant to outer space activities with a view to determining the appropriateness of supplementing such law with provisions relating to the use of NPS in outer space". At the Geneva session, a number of

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delegations expressed the view that existing international law relevant to the use of nuclear power sources in outer space is inadequate and needs to be supplemented. They supported the working paper in document A/AC.105/C.2/L.126 submitted at that session by the Canadian delegation. In our view, the Canadian working paper contains many valuable suggestions which merit further careful consideration. Indeed, my delegation is convinced that, in our common efforts to reduce the risks involved in the use of nuclear power sources in outer space, the legal aspects must be carefully and continuously examined. Therefore, we strongly urge that more time be allotted for study of this tremendously important question by the Legal Sub-Committee at its next session. In our view, the principal issues requiring examination and appropriate action are in the areas of safety, notification and emergency assistance. However, because the safety issues are still being considered by the Scientific and Technical Sub-Committee, we are of the view that the Legal Sub-Committee should at its next session concentrate on consideration of the issues relating to notification and emergency assistance.

Further, we believe that any consideration of the legal aspects relating to the use of nuclear power sources in outer space should comprise two elements. First, specific aspects of the use of nuclear power sources in outer space which are not covered by existing international law must be identified. If such specific gaps are identified, then we should study the question of what legal arrangements, if any, would be appropriate to remedy the situation.

In this connexion it is the task of our Committee to consider what arrangements should be made for promoting the discussion of this question at the next session of the Legal Sub-Committee. We understand that the establishment of a special working group to study the problem might be included in such arrangements. We hope that this Committee will issue appropriate guidelines for the work of the Legal Sub-Committee for its next session.

(Mr. Nisibori, Japan)

Finally, as I mentioned earlier, my delegation is pleased with the progress which was made at the last session of the Scientific and Technical Sub-Committee in preparing for the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE '82), to be convened in the latter half of 1982. Nevertheless, some important questions, such as those relating to the venue of the Conference and to its exact dates and duration, could not be resolved and have been placed before this Committee for its consideration.

With regard to the question of venue, my delegation noted at the last session of the Sub-Committee that, for various reasons, including the divergent views existing among delegations, as well as factors relating to finances, the purposes of the Conference could best be served if the venue were selected from among the United Nations cities. Therefore, my delegation welcomes the invitation extended yesterday by the Austrian Government to hold the Conference in Vienna, and hopes that this Committee will, by consensus, accept that invitation.

As for the duration of the Conference, my delegation remains convinced that a two-week session would be most appropriate. This conviction was strengthened by the Secretariat report (A/CONF.101/PC/L.5), which indicates that special conferences of the United Nations, including, for example, the United Nations Conference on Science and Technology for Development and the United Nations Conference on the Human Environment, are generally convened for a period of two weeks.

With regard to the officers of the Conference, although no decision was reached at its last session, the Advisory Committee confirmed that the Secretary-General of the United Nations should appoint a Secretary-General and three Deputy Secretaries-General at least 18 months prior to the date scheduled for the last session of the Preparatory Committee. Therefore, every possible effort should be made during the current session of this Committee to work out a generally acceptable plan for the selection of all Conference officers.

(Mr. Nisibori, Japan)

I should like to add, however, that we share the view that because the appointment of officers is the prerogative of the Secretary-General of the United Nations, it should be made on the basis of the principles enshrined in Article 101 (3) of the Charter of the United Nations.

Finally, with regard to the background papers to be prepared by the Secretariat, my delegation hopes that the Committee will have no difficulty in approving the topics of these papers, as listed in document A/CONF.101/PC/L.6.

In closing, I should just like to express our confidence that this Committee, as the Preparatory Committee for the Second United Nations Conference on Outer Space, will be successful in resolving these various and - as we are all only too well aware - extremely important issues.

Mr. BODDENS-HOSANG (Netherlands): First of all, Mr. Chairman, I should like to emphasize, on behalf of my delegation, how grateful we are that you once again are putting your experience and skill at our disposal in presiding over our Committee. We equally extend our appreciation to the other members of the Bureau and to the officers of the two Sub-Committees, as well as to the members of the Secretariat, for their contribution to the advancement of the role of the United Nations in outer space affairs.

For the sake of brevity, I shall refrain from giving a full account of my country's national and co-operative space activities. Let me just say that at present my authorities are in the process of defining the priorities for the Netherlands' space policy in the 1980s. We have various options before us, such as the construction of a third scientific satellite, the development of a remote-sensing satellite, or wider participation in certain optional programmes of the European Space Agency (ESA). In due time we shall certainly inform this body of the outcome of this process.

During last year's session, concern was expressed about developments that seemed to undermine the concept of outer space as a truly peaceful environment. As indicated by you in your introductory statement, Mr. Chairman, as well as by the representative of Sweden yesterday, the causes for this concern - which is shared by my delegation - have not been removed: far from it, I would say. We still face the threat of an increasing militarization of outer space, in particular as a result of the development and testing of anti-satellite weapons, such as the so-called killer satellites - missiles directed at satellites, launched from aircraft, or laser weapons and particle beam weapons installed on earth or in a space object. In the last case, the weapon could perhaps be used against targets on earth, as well.

(Mr. Boddens-Hosang, Netherlands)

Anti-satellite weapons are potentially extremely destabilizing in a situation of an already precarious nuclear balance. I need not dwell further on the consequences the introduction of this kind of devices can have for peace and security. I shall confine myself to addressing once again an urgent appeal to the States concerned to resume without delay the negotiations on the prohibition of anti-satellite weapons in order to prevent outer space from becoming a new and highly dangerous arena for the already disastrous arms race. Frankly, my delegation never understood why these talks have not been continued, since they are so much in the interest not only of the international community as a whole but also of the Powers directly concerned.

After those general remarks, I should now like to turn to some specific items on our agenda. On remote sensing, our position is well known: we see no reasons for limitations on the accessibility or dissemination of remote sensing data and information. Such limitations would, in our view, result from the creation of two categories of States: on the one hand, States carrying out remote-sensing activities, in full possession of all kinds of data and information, and, on the other hand, States not having the means to carry out remote sensing, and which do not have full access to the results of the use of remote-sensing technology.

It is difficult for us to go along with the establishment of rules that may lead to this type of discrimination. The concept of unlimited availability of remote-sensing data and information has been objected to by some States on the ground that this would jeopardize their national security. Those States have put forward proposals according to which data finer than a certain spatial resolution should not be disseminated freely. Frankly, my delegation sees no point to that reasoning. We all know that observations from outer space for military purposes are carried out, and will continue to be carried out, regardless of the rules that we might agree upon in this body.

(Mr. Boddens-Hosang, Netherlands)

A more important objection, however, is the following: in Europe, States try to strengthen international security by informing one another of certain military activities. These so-called confidence-building measures are founded on the assumption - correctly so, in the opinion of my Government - that the availability of information on a mutual basis will promote peace and stability. We fail to see why mutual information on military activities, as a kind of by-product of remote sensing, would in other parts of the globe have the opposite effect. More mutual information will lead to a decreased risk of misunderstandings, of mistrust and of distorted and false impressions about one another's intentions.

From the preceding it may be clear that my delegation is not in favour of proposals restricting the dissemination of certain categories of remote sensing data.

The next item on our agenda is that of direct television broadcasting via satellites, and that is by no means an isolated phenomenon: it is just one of the many means of communication among people and, as such, it should be seen against a background of communication problems in general.

(Mr. Boddens-Hosang, Netherlands)

This topic - communication problems in general - is the subject of a comprehensive report by a Commission established within the framework of the United Nations Educational, Scientific and Cultural Organization (UNESCO), called the MacBride Commission. The basic idea in this highly interesting report is that the flow of information in the world is neither free nor balanced and that this situation should be remedied. Freedom of information is given particular emphasis in the report. The Commission insists, in the words of the report, "that many derogatory and arbitrary restrictions to the freer flow of information should be eliminated straight away". Consequently, one of the recommendations of the report reads: "censorship or arbitrary control of information should be abolished". We gladly noted that this recommendation, which is very relevant to our work here, was supported almost unanimously in the Commission: only one member objected to it.

With regard to the lack of balance in the flow of information, the Commission proposes a whole range of measures aimed at strengthening and expanding the means of communication of developing countries and at increasing the international exchange of information. Although my Government has not yet taken a final position on all the recommendations of the MacBride report, I can say here that the Netherlands fully agrees with the basic approach of the Commission, which is directed at a free and better balanced flow of information and communication. That is why the Netherlands Government will make available substantial financial assistance for communication development in the near future. From the same point of view and in agreement with the approach of the MacBride report, we maintain our basic position regarding direct television broadcasting via satellites. We still have serious doubts on the necessity of elaborating provisions which, on the one hand, seem to be superfluous in view of the already existing technical regulations and, on the other, create the risk of encroaching upon the free exchange of information.

In spite of these hesitations, we have noted with interest that, in informal discussions during the last session of the Legal Sub-Committee, a formula for the disputed principle on consultations and agreements between States was drafted which could possibly unblock the way to agreement, provided that on the other outstanding issues, such as the principle on State responsibility, a solution can be worked out. We for our part are prepared to contribute to efforts to reach a final consensus.

(Mr. Boddens-Hosang, Netherlands)

The MacBride report also contains an interesting suggestion concerning the geostationary orbit. As one of the means to secure sufficient financial resources for development in the field of communication, it mentions the possibility of an international duty on the use of the geostationary orbit for the benefit of the developing countries. I am of the view that this suggestion could be explored further, since it is correctly founded on the concept of the geostationary orbit as a phenomenon to be exploited for the benefit of all, regardless of the level of technological development or geographical position.

With regard to the use of nuclear power sources in outer space, recent events seem to indicate that a certain regulation of the use of nuclear power sources in outer space is even more needed than we first thought. The Scientific and Technical Sub-Committee is dealing with the technical aspects involved. With regard to the legal aspects, we support the approach embodied in the Canadian working paper which is attached to the Legal Sub-Committee's report. We share the view that this Sub-Committee should be given the opportunity, through appropriate organizational measures, to afford the legal aspects all the attention they deserve, notably by the establishment of a special working group.

In order to keep the length of this statement within reasonable limits, I shall refrain from comments on the other topics on our agenda. With regard to the highly important subject of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, we shall give our views as soon as we reconvene again as a Preparatory Committee.

I should like to conclude by expressing the hope that at this session of our Committee we shall again succeed in combining a pleasant working atmosphere with the positive results that are expected of it.

Mr. MAENNIG (German Democratic Republic): Mr. Chairman, permit me to express my delegation's pleasure at seeing you again presiding at this session of the Outer Space Committee. Your experience and your qualifications, which have been rightly praised on many previous occasions, lead us to be optimistic on the course of this session.

Our delegation entirely shares your opinion that the broad public has to be acquainted with all scientific and technical possibilities of the peaceful exploration and uses of outer space. The interrelationship between détente and the peaceful uses of outer space is quite obvious. We think that also this year the Outer Space Affairs Division did excellent preparatory work for our session, which will reflect positively on our forthcoming discussions.

The delegation of the German Democratic Republic sincerely wishes to express its recognition and heartfelt thanks to Professor Perek for the five and a half years during which he successfully directed the Outer Space Affairs Division and for the great professional and diplomatic abilities he has shown in that function. We hope that his experience and advice will again be made available to this Committee in the future.

(Mr. Maennig German
Democratic Republic)

There is no doubt that the stability of the international situation constitutes the basis for trust and co-operation between States in the peaceful exploration and use of outer space. My delegation would therefore like to observe with particular emphasis that the German Democratic Republic, together with the USSR and the other States of the socialist community, will do its utmost to prevent developments that would jeopardize the fruits of international détente. Regrettably, certain circles try again and again to obstruct peaceful co-operation. The goal of our efforts is above all to eliminate focal points of international tension, to take decisive steps towards ending the arms race and, generally, to spare no efforts to prevent the outbreak of a war. This basic concern of socialist foreign policy was manifested anew in the Declaration adopted by the States Parties to the Warsaw Treaty on 15 May 1980. The German Democratic Republic holds that all these efforts are significant in promoting continuing successful co-operation in the peaceful use of outer space.

Since last year's session of this Committee considerable progress has been made in continuing the exploration and use of outer space for peaceful purposes.

We would pay a special tribute to the Soviet Union's achievements in developing a space-transportation technology on the basis of docking SOYUZ, PROGRESS and SALYUT spacecraft, which has made it possible to assemble manned orbital stations having a long functional life. We also greatly appreciate that Cosmonaut Valery Ryumin, who after 175 days in orbit returned to earth on 19 August 1979, began a new extended space flight on 9 April of this year. This is the first time in the history of manned space flight that a cosmonaut has after so short a period of time taken part in another space mission. We should also like to congratulate the delegation of the USSR on their country's most recent technological performances as manifested in the launching of the first manned spacecraft of the new SOYUZ-T series.

A few weeks ago, on 26 May, the Hungarian research cosmonaut Bertalan Farkash joined his Soviet colleague Valery Kubasov in a manned space venture, and we wish very cordially to congratulate the Hungarian delegation on that accomplishment. That was the fifth mission within two years with international crews from countries co-operating in the INTERCOSMOS programme.

(Mr. Maennig, German
Democratic Republic)

The fact that within so short a time 50 per cent of the ten socialist countries participating in this programme have with Soviet help sent a cosmonaut on a space mission reflects the efficiency of the programme's implementation. Now Vietnamese, Cuban, Mongolian and Romanian cosmonauts are training for flights. Further, now Indian and French cosmonauts also are expected in the USSR to begin training, which demonstrates the continuous expansion of international co-operation in this field, serving the peaceful uses of outer space.

Permit me to brief the Committee on the activities in which the German Democratic Republic has been engaged over the last year within the framework of the socialist countries' INTERCOSMOS programme. At the Congress of the International Astronautical Federation held in Munich in September 1979 we gave information about the first scientific and technical results of the numerous experiments conducted in outer space by the German Democratic Republic's first research cosmonaut, Sigmund Jaehn. I should like now briefly to review them.

In experiments related to the remote sensing of the earth, the vertical photographs that were obtained by the MKF-6 multispectral camera were excellently complemented by oblique-angle photographs taken by Pentacn Six and EE-2 hand-held cameras. This technique allowed for the systematic exploration of meteorological, geological and oceanological phenomena over large areas and the photographic recording of interesting horizontal processes in the atmosphere. For the first time, audiometric checkings of cosmonauts aboard a craft in outer space were carried out with simultaneous measurement of the station's noise level. The experiment yielded interesting, clearly detectable differences from audiogrammes obtained on earth. Cosmic biological experiments also showed results that significantly differed from reference experiments on the earth. Finally, the material sciences experiments also produced peculiarities due to different melting and solidification conditions in outer space.

Regarding the German Democratic Republic's participation in unmanned missions within the INTERCOSMOS programme, I wish to mention some of the relevant activities.

(Mr. Maennig, German
Democratic Republic)

The experiments with the SI-1 infrared Fourier spectrometer, which was developed in the German Democratic Republic, are being systematically continued. The instrument successfully measures with high precision the radiation energy emanating from the earth and its atmosphere into outer space in the infra-red spectral range between 6 and 25 micrometres. The method allowed observation on a regular basis of areas such as oceans and deserts, where access is extremely difficult on the earth's surface. The great importance of the results obtained for meteorological research and the future application of operational satellites is incontestable.

Aboard a Soviet research vessel in the Indian Ocean, scientists from the German Democratic Republic participated in a research programme to explore circulation and energy exchange processes in tropical regions that lead to the formation of the summer monsoons. The German Democratic Republic launched balloons and electrochemical ozone probes reaching altitudes of up to 35 kilometres and rockets carrying photometers to peak altitudes of 80 kilometres. The simultaneous and complex gathering of various parameters yielded results of great scientific significance.

The INTERCOSMOS-20 satellite, which was launched in November 1979, carried a test instrument block that was developed jointly by the USSR, Czechoslovakia, Hungary and the German Democratic Republic. The instrument can automatically recall stored scientific data from data-collecting platforms located on the earth's surface, store those data aboard the satellite and then transmit them to central ground receiving stations. In addition, the satellite carries a multi-channel spectrometer to examine organic particles in the upper layers of sea water and irritating influences of the earth's atmosphere on remote sensing of the surface.

My delegation hopes that this outline has shown that the German Democratic Republic is systematically continuing its space research programme within the framework of the INTERCOSMOS programme and is increasingly applying the research results obtained for its economic purposes.

(Mr. Maennig, German
Democratic Republic)

My delegation attaches great importance to the twenty-third session of the Committee and is ready to co-operate constructively in the solution of outstanding problems. We hope that this session will take its course in the spirit of co-operation and mutual understanding in an objective atmosphere, and that we shall be able to submit a report of valuable substance to the United Nations General Assembly at its thirty-fifth session. My delegation will do its best to make its contribution to the discussions on the various items of the agenda, to help to produce positive results.

The CHAIRMAN: As it is getting late and I still have a number of speakers on my list, I suggest that, if there are no objections, we continue our debate on this item this afternoon and as soon as we have exhausted the list of speakers, we meet as the Preparatory Committee.

The meeting rose at 1.10 p.m.